Andrew Woodlee

Cybersecurity Software Engineer

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github.com/Cybersshell

Education

University of Alabama in Huntsville, MS in **Cybersecurity (Engineering track)**   Jan 2025 – present
- Current GPA: 4.0 - slated to obtain Summer 2026

University of Alabama in Huntsville, BS in **Cybersecurity Engineering**   Aug 2019 – Dec 2024
- Secure Software Development, Embedded Systems, Cybersecurity Engineering
- Software Reverse Engineering, System Security, Network Security

Experience

Research Assistant II, The University of Alabama System Management and Production   June 2023 – July 2024
Center – Huntsville, Alabama
- Led Arduino programming for a project for City of Huntsville
- Includes developing enhancements for audio playback and kinetic movement of the project
- Linux Development for Jackson County Schools (Raspberry Pi for a PX 100 Robotic Arm) STEM project

Certifications

Security+ Certified
Current 701

Skills

Linux Expert, and am proficient with C/C++, Go, and JavaScript.

Server Admin / Docker

Efficient with Git/Git hosting to develop software and CI/CD pipelines for automated deployments.

Embedded Systems Development: platforms include ESP-32, Arduino, and MSP430.

Web development includes HTML templating using Pug, a JavaScript library. NodeJS for backend development.

At UAH, I use IDA Pro and Ghidra for reverse engineering solutions.

Extensive set of working abilities with IDS/IPS (Regional UAH Rep. Cyber Defense at CCDC)

Projects

Backy (https://backy.cybershell.xyz)   Sept 2022 – present
- Includes Go libraries to create a command execution tool
- Go's native SSH library to run commands over SSH
- Go libraries to create a YAML configuration
- Configuration of notifications on completion and failure

Home server with remote access   Sept 2022 – present
- WireGuard to access home server from VPS
- Hosting web applications like Nextcloud
- Secured SSH access over VPN

Cloud Server Administration   Sept 2023 – present
- Hosting mail servers (https://stalw.art), FoundationDB as a backend
- Secured FoundationDB with TLS certificates
- Additional applications include Gitea, Linkwarden, and others using Docker
- Data backups are all secured using Restic/Autorestic
- Developed Proprietary System *Backy* to streamline and automate, ensuring uptime, safety, and compliance

Wallet Transformer Monitor   Sept 2023 – May 2024
- Senior Design Project monitoring a single-phase 120V transformer (ESP-32 and a web dashboard)
- Wrote ESP-32 code that interfaced with an energy sensing chip, temperature sensors, WiFi, and MQTT over SSL.
- Assembled voltage and current sensing, full-bridge rectifier circuits safely

Digital Telepresence (https://git.digitaltelepresence.com/digital-telepresence/)   Apr 2022 – Mar 2024
- DTP is an online application suite for the web
- Collaborated building a new system from the ground up
- Designed novel solutions
- Service-oriented MVVM development and separation of concerns